

## CLAIMS

We claim:

- 1           1.       A focal plane plate for a high resolution camera with light-sensitive  
2 semiconductor sensors comprising:  
3                housings for the light sensitive semiconductor sensors, said housings having a  
4 form; and  
5                adjustment elements arranged on the focal plane plate at arrangement locations  
6 of said housings, said adjustment elements having a form complementary to the form of said  
7 housings.
- 1           2.       The focal plane plate in accordance with claim 1, wherein said adjustment  
2 elements comprise one from a group consisting of parallelepipedal islands and inserts.
- 1           3.       The focal plane plate in accordance with claim 2, further comprising cutouts for  
2 releasably receiving said inserts.
- 1           4.       The focal plane plate in accordance with claim 3, wherein said housings are  
2 permanently connected to the complementarily adapted adjustment elements.
- 1           5.       The focal plane plate in accordance with claim 3, wherein said housings and  
2 associated inserts are integrally formed.
- 1           6.       The focal plane plate in accordance with claim 3, further comprising adjustment  
2 webs arranged in said cutouts in the focal plane plate.

1           7.     The focal plane plate in accordance with claim 3, further comprising focal plane  
2 plate holes adapted to receive heat pipes for passing coolant therethrough.

1           8.     The focal plane plate in accordance with claim 7, wherein said focal ~~plane~~ plate  
2 holes are arranged to pass through one of said islands and said cutouts, said inserts further  
3 comprising insert holes, wherein said focal plate holes form a duct with said insert holes.

1           9.     The focal plane plate in accordance with claim 1, wherein the focal plane plate  
2 and said adjustment elements comprise a expansion compatible material with respect to said  
3 housings.

1           10.    The focal plane plate in accordance with claim 9, wherein said adjustment  
2 elements comprise a first material and the focal plane plate comprises a second material, said  
3 first material having a greater thermal conductivity than said second material.

1           11.    The focal plane plate in accordance with claim 9, wherein said housings, said  
2 adjustment elements and the focal plane plate are composed of the same material.

1           12.    The focal plane plate in accordance with claim 9, wherein said housings, said  
2 adjustment elements and the focal plane plate are composed of aluminum nitride ceramic.

1           13.    The focal plane plate in accordance with claim 1, wherein the light-sensitive  
2 semiconductor sensors comprise contact pins and the focal plane plate is plated in a region of  
3 said contact pins.

1           14.    The focal plane plate in accordance with claim 13, wherein said inserts further  
2   comprise side walls having conductor tracks electrically connectable to said contact pins, and  
3   separate contact pins for extending a length of said contact pins.

1           15.    The focal plane plate in accordance with claim 14, wherein said conductor  
2   tracks comprise silver-palladium paste printed onto said inserts.

1           16.    The focal plane plate in accordance with claim 1, further comprising a  
2   temperature sensor arranged on said adjustment elements.

1           17.    The focal plane plate in accordance with claim 15, wherein said inserts further  
2   comprise a top side having chamfered edges.

1           18.    The focal plane plate in accordance with claim 14, wherein said cutouts further  
2   comprise additional cutouts in a region of said contact pins, said additional cutouts comprising  
3   plated-through holes.

1           19.    The focal plane plate in accordance with claim 1, wherein the light-sensitive  
2   semiconductor sensors comprise electronic circuitry arranged on an underside of the focal  
3   plane plate.

1           20.    A method for adjusting housed light-sensitive semiconductor sensors on a focal  
2   plane plate comprising the steps of:

3                   measuring a position of a surface of the light-sensitive semiconductor sensors  
4   with respect to an underside of the housings;  
5                   forming a surface of adjustment elements such that the surface is  
6   complementarily shaped with respect to housing forms of the light-sensitive semiconductor  
7   sensors; and  
8                   connecting the light-sensitive semiconductor sensors to the formed adjustment  
9   elements, wherein pixels of the light-sensitive semiconductor sensors lie substantially in one  
10 plane when fitted onto said adjustment elements.